

REMARKS

In an office action dated June 4, 2003, the examiner rejected claims 1-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 6,287,706.

To overcome this rejection, Applicant has attached hereto a properly worded terminal disclaimer signed by the undersigned attorney, disclaiming the terminal portion of the term of any patent that may issue from the above-referenced application which would otherwise extend beyond the term of U.S. Patent No. 6,287,706. Accordingly, Applicant requests the examiner to withdraw this rejection.

The examiner has rejected claims 1-7, 10 and 11-13 under 35 U.S.C. §102(e) as being anticipated by Betso et al., U.S. Patent No. 5,576,374. The examiner maintains that Betso et al. teaches materials corresponding to the materials used by Applicants, and also teaches that these materials are extruded (column 9, lines 49+) and recites "single ply roofing" as one of the forms. The examiner acknowledges that Applicants claim the instant material as being flooring, but takes the position that the single ply roofing material taught by the prior art corresponds to the claimed sheet material.

Applicant respectfully points out to the examiner that the *only* disclosure of any kind regarding roofing material in Betso is found in claim 15 which states:

The fabricated article of claim 14, wherein the fabricated article is selected from the group consisting of automotive hoses, single ply roofing, and wire and cable voltage insulation.

Applicant has carefully reviewed the specification of the Betso et al. patent and no mention is made of roofing material. In fact, the vast majority of Betso's specification is directed to delineating the structural and functional characteristics of the claimed polymeric and polymeric blend compositions, the starting materials used to fabricate them, the

processing conditions, etc. The only portion of the specification which mentions how the polymeric and polymeric blend compositions may be formulated into useful articles is contained in the last two paragraphs of column 9. The first of these two paragraphs discusses dry blending the individual components and then melt mixing (either directly in the extruder used to make the finished article or by pre-melt mixing in a separate extruder), as well as directly injection molding dry blends of the compositions without pre-melt mixing. The latter of the two paragraphs discusses molding operations which can be used to form articles or parts from the claimed formulations, including various injection molding processes, blow molding processes, extrusion blow molding, and profile extrusion. The paragraph concludes with the words "Some of the fabricated articles include automotive bumpers, facia [sic], wheel covers and grilles, as well as other household and personal articles, including, for example, freezer containers." Conspicuously absent from this list of possible articles is any roofing material, or, for that matter, anything in the form of a sheet material.

Moreover, there is no mention anywhere in either of the two patent applications from which the Betso reference claims priority (Serial Nos. 45,330 and 945,034) of any kind of roofing application.

Applicant has also carefully reviewed the file history of the Betso et al. patent and it appears that the single reference to "single ply roofing" which appears in claim 15 was *not* present in the original filing of the application which issued as the Betso et al. patent. Rather, claim 15 and the language therein was added by an amendment filed on March 27, 1995. Of course, this date is after the priority date of August 4, 1994 of the above-referenced patent application. Accordingly, claim 15 of Betso et al. is not prior art to Applicant's invention under 35 U.S.C. §102(e).

It is interesting to note that, at the time claim 15 was added by amendment, the attorney in charge of prosecuting the Betso application stated that "new claim 18 [which became claim 15 when the patent issued] is supported in the Specification on p. 16, lines 28-30." These lines correspond to column 9, lines 50-54 of the issued patent, which are the same lines quoted above, enumerating the freezer containers and automotive bumpers, but not including any kind of roofing material. Certainly, the disclosure does not support the language of claim 15 and the enumeration of "single ply roofing material" would have to be considered new matter. Thus, while the PTO should certainly not have issued claim 15, the fact remains that it did. Accordingly, as a reference, the teaching of single ply roofing material in Betso is only good as of the November 19, 1996 issue date of the patent, which is long after the filing date of the above-referenced application. Hence, this teaching in Betso also does not qualify as a 35 U.S.C. §102(b) reference.

Of course, without the prior art teaching of single ply roofing material, the Betso reference is completely devoid of any disclosure, teaching or suggestion of using any of the polymeric and polymeric blend compositions therein as a sheet material. Accordingly, it totally fails as an anticipatory reference, and the examiner should withdraw the rejection.

Applicant further notes that the examiner appears to have underlined the words "profile extrusion" from the Betso specification, but there is no disclosure of any kind of sheet extrusion. Generally speaking, profile extrusion is used for very different purposes from those for which sheet extrusion is used. Profile extrusion is used for producing sections having a particular characteristic profile, such as window frame sections, seals, etc. It is not used for sheet material. Accordingly, Applicant submits that there is no basis at all on which Betso could constitute anticipatory prior art under any subsection of 35 U.S.C. §102. Furthermore, there is no motivation in Betso (or in any of the other prior art of record) which

would motivate one of skill in the art to disregard the molding and extrusion techniques actually taught by Betso to fabricate various profiled and shaped articles in favor of roll forming a sheet material. Thus, claims 1-7, 10 and 11-13 are neither anticipated by nor obvious over the Betso patent.

The examiner has also rejected claims 12-14 under 35 U.S.C. §103(a) as obvious over Betso et al. This particular rejection concerns compounding the materials at a temperature above 75°C as claimed. Of course, since the basic Betso reference does not teach any kind of sheet forming processes or any kind of sheet formed materials, claims 12-14, which add additional process limitations, cannot possibly be obvious over this single reference. Accordingly, Applicant respectfully requests the examiner to withdraw this obviousness rejection.

The examiner has also rejected claims 1-7, 10-16 and 20 as obvious over U.S. Patent No. 5,366,779 to Thompson in view of U.S. Patent No. 5,272,236 to Lai et al. He cites Thompson for teaching flooring materials which comprise fillers, tar and polyethylene (claims 1 and 2). The examiner notes that "The tar material would function as a plasticizer," but also acknowledges that, "while Thompson generally suggests the use of polyethylene materials, there is no specific mention of narrow molecular weight polyethylene materials made by a single site catalysis or the use of foamed layers." He cites the Lai et al. patent for teaching narrow molecular weight, substantially linear, single site catalyzed ethylene/alpha olefin copolymers (polyethylene) which have improved processability and Dart impact strength over conventional polyethylene (column 2, lines 11-50, and column 21). Accordingly, he maintains it would be obvious to have selected Lai's materials for use in the flooring taught by Thompson "in order to produce materials having improved processability and Dart impact strength." He also maintains that using the calendaring step in the formation

of the sheets taught by Thompson et al. in order to produce more even smoother coating would be obvious.

Thus, it appears that the examiner is suggesting it would have been obvious to one of ordinary skill in the art (in August 1994) to have substituted the polyethylene materials produced by Lai for the polyethylene materials used by Thompson in a "bitumen composition backing layer" for a carpet tile (or other "fibrous face flooring surface covering"). In actual fact, a closer analysis of Thompson strongly indicates the direct opposite to be the case. Thompson emphasizes throughout that his "bitumen composition" must contain a "mixture of high density and low density polyethylene polymer blended and dispersed in the . . . bitumen as a continuous phase" (see abstract and also column 2, lines 13-14; column 4, lines 13-35; claim 1; and at column 4, lines 38-39: "An important factor is the selection and blending of the polyethylenes used."). As explained by Thompson at column 4, lines 27-37, "The use of a moderate density polyethylene . . . is not satisfactory due to the large concentrations required The use of low density polyethylene alone is also not satisfactory" Thus, Thompson clearly teaches away from using materials such as those taught by Lai in that it is not possible to substitute any other available polyethylene materials for those disclosed by him and still practice the spirit of his invention.

Accordingly, not only does Thompson not suggest any possible reason for substituting the disclosed polyethylene materials for the relatively more expensive specialty polyethylene materials of Lai, but Thompson actually teaches away from the idea of any departure from or substitution for the particular combination of polyethylene materials that he actually discloses. Accordingly, it would be anything but obvious to combine these particular references to achieve anything close to Applicant's invention.

Applicant further notes that the examiner has suggested that "Thompson teaches flooring materials, which comprise fillers, tar (bitumen) and polyethylene (claims 1 and 2). The tar material would function as a plasticizer." In other words, the examiner appears to be suggesting that the bitumen is being used to modify the properties (flexibility or processability, perhaps?) of the polyethylene. It is clear, however, from Thompson's repeated references (in virtually every paragraph) to his material as a "bitumen composition," as well as the further explanation of the nature of the bitumen composition at column 2, lines 48-63 ("bitumen composition . . . manufactures from . . . bitumen and . . . polyethylene as a modifier") that in actual fact the polyethylene is being used to modify the properties of the bitumen composition and not the other way around. This is still further emphasized by Thompson's explanation of the key features of the composition at column 4, lines 19-27, which indicate the use of only 3.5 to 12.5% w/w of polyethylene (LDPE plus HDPE) ("less than about 12% by weight," according to claim 1 or up to about 12% according to the abstract) in the bitumen composition in the case where a filler is included (40 to 65% w/w according to column 4, lines 54 to 59), this would correspond to a bitumen content of the order of from 57% to 23% of the total composition; i.e., at least 2 to 5 times as much as the polyethylene content. These ratios may be contrasted with amounts in the order of 30 to 40% of conventional (non-polymerizable) plasticizer relative to the PVC in PVC (settable) plasticizer relative to the MPO, in Example 5 of the present application.

Thus, the essence of Thompson's teaching in reality is the use of a small amount of a particular blend of polyethylenes as a modifier for a bitumen composition. In such a context, it is clearly apparent that considerations such as "Dart impact strength" would be of little or no significance at all in relation to the overall properties of the bitumen composition. In contrast, the present invention concerns a polyalkene floor covering (or component thereof)

having a polyalkene principal component in which the properties of the polyalkene component play a major role in the overall properties of the floor covering sheet material. Accordingly, there would be no possible motivation to one of ordinary skill reading Thompson's disclosure of a bitumen composition containing a small amount of a special type of polyethylene modifier to make a polyalkene-based floor covering (or individual sheet material layer thereof) of any kind. Neither does Thompson remotely begin to suggest how, if at all, the familiar problems of making a satisfactory polyalkene-based floor covering could possibly be solved, having due regard to the nature of these problems, as noted in the present application ("significant processing problems and . . . not suitable for use in floor covering manufacturing facilities based on spread coating and calendaring technology" (page 1, lines 18-23) and "insufficient tensile and tear strength, abrasion and stain resistance, and elastic recovery" (page 1, lines 26-29)). These problems involve significant differences from those problems considered by Thompson, namely, "improved dimensional stability, adhesion, static loading and electrical conductivity."

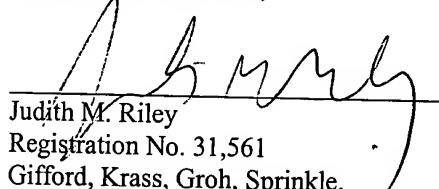
Accordingly, there is simply nothing in Thompson to motivate one of skill in the art to want to substitute the polyethylene bitumen modifiers used therein for any reason, nor even to begin to consider how to make a polyalkene based floor covering (or component layer thereof). Applicant further submits that the Lai disclosure of "fibers, films and molded parts" provides no motivation for using the compositions taught therein in any kind of floor covering product, let alone in Thompson's bitumen compositions. Moreover, even if the polyethylene modifier of Thompson were replaced by one of Lai's specialty polyethylenes, this would still not result in a polyethylene-based floor covering according to the present invention.

For all the reasons discussed above, Applicant respectfully submits that claims 1-7, 10, 16 and 20 are unobvious over the combination of Thompson and Lai.

In summary, Applicant has demonstrated that the teachings of Betso which the examiner has relied upon for the 102(e) rejection are not prior art to Applicant's invention. Accordingly, Applicant respectfully requests the examiner to withdraw this rejection. Furthermore, Applicant has demonstrated that the combination of Thompson and Lai would not achieve Applicant's claimed floor coverings, that the Thompson reference teaches away from making such a substitution, and that there are no teachings in either reference or in the prior art in general which would motivate one of skill in the art to combine them. For these reasons, this rejection must fall as well. Finally, with regard to the obviousness rejection over Betso, it also should be withdrawn because Betso is not prior art to Applicant's invention.

Applicant submits that all of the pending claims are in condition for immediate allowance and respectfully requests expeditious notice thereof. Should the examiner have any questions or comments, he is respectfully requested to contact the undersigned attorney at the office number below.

Respectfully submitted,



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